# EPIDEMIOLOGIST GS-601-13

### 1. INTRODUCTION

This position is located in the Preventive Medicine Directorate, Navy Environmental Health Center (NAVENVIRHLTHCEN), Norfolk, Virginia. The mission of NAVENVIRHLTHCEN is to coordinate and provide centralized support and services to medical activities, afloat and ashore, in areas of occupational health, environmental health, preventive medicine, and health promotion.

The work of this position involves data compilation, management, validation, and analysis for the purpose of maintaining optimal functioning of NAVENVIRHLTHCEN's many support and service initiatives. The incumbent plays a pivotal role by providing high-quality information used in support of data-driven decisions.

### 2. MAJOR DUTIES

The incumbent serves as a staff expert/consultant. In this capacity, he/she provides expert consultation, technical assistance, and expertise in epidemiology and biostatistics to staff and customers of the Navy Environmental Health Center. These responsibilities include, but are not limited to:

- a. Assesses databases important to the work of NAVENVIRHLTHCEN and her customers. Actively involved in linking NAVENVIRHLTHCEN to these databases and receiving and giving training to develop skills for using these databases. Uses these databases to design studies, answer inquiries, and produce reports.
- b. Develops and conducts epidemiologic studies in support of Department of the Navy occupational health, preventive medicine, industrial hygiene, and environmental/public health protection programs. Oversees the analysis of data and ensures timely dissemination of the results of these studies. Duties may include development and review of study protocols, critical literature reviews, direct participation in data collection, and interpretation of study results.
- c. Identifies critical outcomes measures, both morbidity and mortality based, for the evaluation of the effectiveness of clinical services, managed care initiatives, disease prevention programs, and health promotion activities for the Navy and USMC.

Compares outcome objectives for disease prevention and health promotion programs which will enable comparison with other applicable benchmarks.

30%

d. Provides lectures or briefings on epidemiologic and biostatistical procedures during workshops, seminars, field training evolutions, and technical courses for NAVENVIRHLTHCEN staff and customers.

5%

### 3. FACTORS

### a. Knowledge Required by the Position

- (1) Expert knowledge of biostatistics and epidemiology. At a minimum, the incumbent will possess a Masters of Science degree in epidemiology with at least 15 credit hours in basic and advanced biostatistics courses. A Masters in Public Health degree with at least 30 hours in courses in epidemiology and biostatistics may substitute for the epidemiology degree requirement. A minimum of three years of work experience in the field of epidemiology is required for this position.
- (2) Ability to coordinate and facilitate functions of cross-functional teams of professional and support personnel in conducting routine and non-routine epidemiologic evaluations.
  - (3) Skill in written and oral communication.
- (4) Experience with personal computer use and familiarity with computerized database management and statistical software programs such as SAS or SPSS.
- b. Supervisory Controls. The supervisor sets the overall objectives and, in conjunction with the incumbent, determines timeframes and resources required for work projects. The incumbent is responsible for planning and carrying out the projects, including assessing project resource requirements, resolving most expected and unexpected roadblocks to project completion, integrating and coordinating the work of other team members, and interpreting Naval and DoD policy in support of project requirements. Incumbent exercises judgement in the conduct of research studies, independently selects appropriate study designs and tests of statistical significance, and assumes responsibility for the scientific validity and accuracy of study results. Completed work may be reviewed by the supervisor, with technical assistance as needed from subject matter experts assigned to or affiliated with NAVENVIRHLTHCEN, for success in

meeting requirements or expected results. Results are considered technically authoritative and should generally be acceptable without change.

- c. <u>Guidelines</u>. General administrative guidance is available from standard military instructions. The incumbent must be generally familiar with standard biostatistics and epidemiology publications relevant to the discipline of public health. The incumbent must use initiative and resourcefulness in adapting existing methods to meet project requirements when complex, unusual, or unexpected problems are encountered.
- d. <u>Complexity</u>. The work involves a variety of routine and non-routine epidemiologic evaluations of public health issues addressed by NAVENVIRHLTHCEN. Work projects typically involve a multitude of tasks requiring a thorough knowledge, understanding, and expertise in epidemiologic and statistical principles. Projects frequently require the adaptation or modification of work methods, procedures, or techniques in order to successfully overcome expected or unexpected problems.
- e. Scope and Effect. The purpose of the work is to provide epidemiologic and biostatistical expertise in conducting data collection, verification, and analysis in support of a variety of public health initiatives conducted by or coordinated at NAVENVIRHLTHCEN. The ability of the incumbent to accomplish these duties will directly affect the success of these Navywide programs.
- f. Personal Contacts. Contacts will be by letter, telephone, electronic communication, and personal interactions with NAVENVIRHLTHCEN military and civil service personnel; personnel assigned to other Department of Defense installations, and professional and non-professional staff affiliated with a variety of civilian institutions. The incumbent is considered an expert on matters of epidemiology and biostatistics and is expected to interact effectively with senior policymaking and technical personnel from other activities and agencies. He/she will work in a collaborative manner with colleagues from the Centers for Disease Control and Prevention, the Bureau of Medicine and Surgery, the Office of Disease Prevention and Health Promotion, and state/local health departments.
- g. <u>Purpose of Contacts</u>. Contacts are for the purpose of initiating, facilitating, or completing epidemiologic studies conducted by or with the support of NAVENVIRHLTHCEN. Contacts will emphasize ongoing information exchange and dissemination of

pertinent feedback in order to optimally service internal and external customers.

- h. <u>Physical Demands</u>. The work is typically sedentary. The incumbent may occasionally be required to lift and carry weights up to 25 lbs. (i.e., portable computers, data collection forms, manuals, etc.) for distances up to 100 feet. Bending, walking, and limited stair climbing may be required.
- i. Work Environment. Work is typically performed in an office environment, usually at a desk, and may involve a computer work station with a personal computer. Occasionally, work may be performed in non-office settings including medical treatment facilities, industrial activities, shipboard, or other operational environments where there is a potential exposure to dangers from thermal stress, electrical shock, operating machinery, noise, airborne contaminants, and ionizing/non-ionizing radiation.

### 4. SPECIAL REQUIREMENTS

Travel within the continental United States and abroad may be required but will not exceed 25 percent of the work period.

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The work of this position involves data compilation, review and analysis, and reporting for the purpose of maintaining optimal functioning of NAVENVIRHLTHCEN's many support and service initiatives. The incumbent plays a pivotal role by providing high-quality information used in support of data-driven decision-making at all levels of command.

### 2. MAJOR DUTIES

The incumbent serves as staff expert/consultant. In this capacity he/she provides expert consultation, technical assistance, and state-of-the-art expertise in epidemiology and biostatistics to staff and customers of the Navy Environmental Health Center. These responsibilities include, but are not limited to:

- a. Develops NAVENVIRHLTHCEN's role in Global Emerging Infectious Disease and Surveillance Reporting System. Establishes work plan, serves on DOD groups, coordinates PM team efforts.
- b. Develops and implements new versions, additions to and applications of the NDRS program, requiring interaction with programmers, and implements these via training programs including but not limited to MTF assist site visits, workshop presentations and computer lab supervision, distance learning, and direct interaction with customers.
- c. Serves as Editor of Naval Medical Surveillance Report, ensuring quarterly publications of disease statistics, case histories, and other epidemiologic information.
- d. Develops and conducts epidemiological studies, utilizing existing and new databases, such as NDRS, DMSS, CHCS, PHCS, and

ADS, in support of Department of the Navy occupational health, preventive medicine, industrial hygiene, and environmental/public health protection programs. Oversees the analysis of data and ensures timely dissemination of the results of these studies.

- e. Plans and conducts special epidemiological investigations of limited-and large-scale problems identified by NAVENVIRHLTHCEN's staff and customers. Depending on the nature of the problem, duties may include development and review of study protocols, critical literature reviews, direct participation in data collection, and interpretation of study results.
- f. Requests needed resources and obtains necessary clearances and approvals to conduct long-term and large-scale epidemiologic evaluations. Develops and implements study protocols and evaluation strategies for conducting these studies within existing funding, staffing, and time constraints.

  5%
- g. Provides lectures or briefings on epidemiolgoc and biostatistical procedures during workshops, seminars, field training evolutions, and technical courses for NAVENVIRHLTHCEN's staff and customers.

  5%
- h. Carries out, supervises, or monitors the collections and processing of data in research studies and other epidemiologic investigations conducted by NAVENVIRHLTHCEN's personnel. Projects may require expert knowledge in the use of public health and other nationally recognized computerized databases for developing comparative outcome rates in similar populations. These tasks may include compilation of environmental/ occupational exposure databases; data analysis for risk assessment, such as Monte Carlo probabilistic modeling; and the use of electronic databases over the Internet.

### 3. FACTORS

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requirement. A minimum of three years of work experience in the field of epidemiology is required for this position.

- (2) Ability to coordinate and facilitate functions of cross-functional teams of professional and support personnel in conducting routine and non-routine epidemiologic evaluations.
  - (3) Skill in written and oral communication.
- (4) Experience with personal computer use and familiarity with computerized database management and statistical software programs such as SAS or SPSS.
- b. Supervisory Controls. Works under the supervision of the Director for Preventive Medicine. The supervisor sets the overall objectives and, in conjunction with the incumbent, determines timeframes and resources required for work projects. The incumbent is responsible for planning and carrying out the projects, including assessing project resource requirements, resolving most expected and unexpected roadblocks to project completion, integrating and coordinating the work of other team members, and interpreting Naval and DOD policy in support of project requirements. Incumbent exercises judgement in the conduct of research studies, independently selects appropriate study designs and tests of statistical significance, and assumes responsibility for the scientific validity and accuracy of study results. Completed work may be reviewed by the supervisor, with technical assistance as needed from subject matter experts assigned to or affiliated with NAVENVIRHLTHCEN, for success in meeting requirements or expected results. Results are considered technically authoritative and should generally be acceptable without change.
- c. <u>Guidelines</u>. General administrative guidance is available from standard military instructions. The incumbent must be generally familiar with standard biostatistics and epidemiology textbooks, periodicals and other professional publications relevant to the discipline of public health. The incumbent must use initiative and resourcefulness in adapting existing methods to meet project requirements when complex, unusual, or unexpected problems are encountered.
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- g. <u>Purpose of Contacts</u>. Contacts are for the purpose of initiating, facilitating, or completing epidemiologic studies conducted by or with the support of NAVENVIRHLTHCEN. Contacts will emphasize ongoing information exchange and dissemination of pertinent feedback in order to optimally service the data collection and evaluation team's internal and external customers.
- h. <u>Physical Demands</u>. The work is typically sedentary. The incumbent may occasionally be required to lift and carry weights up to 25 lbs. (i.e., portable computers, data collection forms, manuals, etc.) for distances up to 100 feet. Bending, walking, and limited stair climbing may be required.
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